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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/715,508 | 11/19/2003 | Norman Hutchinson | 30016070-1004 | 4699 |

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EXAMINER

HWANG, JOON H

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/715,508 | Applicant(s) HUTCHINSON ET AL | |
| | Examiner Joon H. Hwang | Art Unit 2166 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-28 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/2/04, 5/6/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-28 are pending.

Specification

2. The disclosure is objected to because of the following informalities:
 - “a data synchronization system 128”, page 12, lines 20-21, should be “a data synchronization system 126”;
 - “a secondary storage computer 112”, page 13, line 7, should be “a secondary storage 112”;
 - “Persistent flag 607”, page 20, line 16, should be “Persistent flag 606”;
 - and
 - “ $T = \langle ns, id, s, d, l, g, t, r, h_m, h_c, c \rangle$ ”, page 22, line 15, should be “ $T = \langle ns, nm, s, d, l, g, t, r, h_m, h_c, c \rangle$ ”.

Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “126” in fig. 1 has been used to designate both Data Synchronization System and Network Collaboration System. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 5, 14, and 23 are objected to because of the following informalities:

- "they" in 3^d line of claim 5 is unclear;
- "they" in 3^d line of claim 14 is unclear; and
- "they" in 4th line of claim 23 is unclear.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 19-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "a computer-readable medium" in 1st line of claims 19 and 25 is insufficient to render the claims **tangibly embodied** in a manner so as to be executable. Page 12, line 6-11, and page 35, line 6-14, define the media as including both recordable media (i.e., a memory) and transmission media (i.e., a carrier wave). "a computer-readable storage medium" is suggested to overcome the 101

rejection. Since claims 20-24 and 26-27 incorporate the deficiencies of claims 19 and 25 and do not add tangibility to the claimed subject matter, they are likewise rejected.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Sutter (U.S. Patent No. 6,446,092).

With respect to claim 1, Sutter teaches a data processing system having peer-to-peer replicated data stores (lines 10-21 in col. 4 and lines 20-33 in col. 10). Sutter teaches receiving, by a first data store, a plurality of values sent from a plurality of other data stores (lines 10-33 in col. 4 and line 4 in col. 74 thru line 64 in col. 75). Sutter teaches updating a value in the first data store based on one or more of the received values for replication (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 2, Sutter teaches the values that are sent from a plurality of other data stores are broadcast from the plurality of other data stores to another plurality of data stores (lines 10-21 in col. 4, lines 20-33 in col. 10, and line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 3, Sutter teaches the first data store is a hierarchical replicated data store (lines 29-37 in col. 61 and lines 35-49 in col. 62).

With respect to claim 4, Sutter teaches determining if a value received from one of the plurality of other data store is consistent with the value of the first data store (lines 15-29 and 57-63 in col. 6 and line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 5, Sutter teaches identifying the difference between the first data store and the data store from which the value was received if they are not consistent (lines 15-29 and 57-63 in col. 6 and line 4 in col. 74 thru line 64 in col. 75). Sutter teaches reconciling the first data store and the data store from which the value was received (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 6, Sutter teaches updating the least recent data store at the point of the identified difference based on the most recent data store (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 7, Sutter teaches receiving by the first data store a plurality of values from the other data stores for one of the entries (lines 10-33 in col. 4, lines 20-33 in col. 10, and lines 57-63 in col. 6). Sutter teaches determining by the first data store which of the values is an appropriate value for the one entry (line 4 in col. 74 thru line 64 in col. 75). Sutter teaches storing the appropriate value in the one entry to accomplish replication (line 4 in col. 74 thru line 64 in col. 75 and lines 10-33 in col. 4).

With respect to claim 8, Sutter teaches determining which of the values is a most recently stored value (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 9, Sutter teaches broadcasting the plurality of values from the other data stores to another plurality of data stores (lines 10-21 in col. 4, lines 20-33 in col. 10, and line 4 in col. 74 thru line 64 in col. 75).

Claims 10-15 are essentially the same as claims 1-6 except that it sets forth the claimed invention as a system rather than a method and rejected for the same reasons as applied hereinabove.

Claims 16-18 are essentially the same as claims 7-9 except that it sets forth the claimed invention as a system rather than a method and rejected for the same reasons as applied hereinabove.

Claims 19-24 are essentially the same as claims 1-6 except that it sets forth the claimed invention as a computer-readable medium rather than a method and rejected for the same reasons as applied hereinabove.

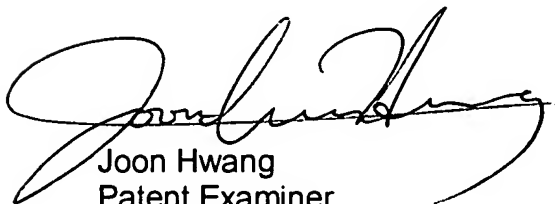
Claims 25-27 are essentially the same as claims 7-9 except that it sets forth the claimed invention as a computer-readable medium rather than a method and rejected for the same reasons as applied hereinabove.

The limitations of claim 28 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joon Hwang
Patent Examiner
Technology Center 2100

4/28/06